

Proceedings of the New York Entomological Society

(Meetings held in Room 129 of the American Museum of Natural History unless otherwise indicated.)

Meeting of March 7, 1972

President Howard Topoff presided; 11 members and 13 guests were present. Dr. Ivan Huber of Fairleigh Dickinson University was elected to Active Membership. Mr. Mitchell C. Miller of the University of Georgia was proposed for Active Membership and Mrs. Joseph A. Mele of Fairleigh Dickinson University was proposed for Student Membership.

PROGRAM. **Hymenopterous Venom and Human Allergies.** Mr. Richard Heckman, substituting for Dr. Allen Benton, both of Pennsylvania State University, made the address, showing slides and a brief movie.

The meeting was adjourned at 9:40 P.M.

JOAN DEWIND, *Sec.*

Meeting of March 21, 1972

The meeting was called to order by President Howard Topoff at 8:15 P.M. Ten members were present.

The minutes of the meeting of March 7, 1972 were approved as read.

Mr. Mitchell C. Miller was elected to Active Membership. Mr. Miller is with the Department of Entomology of the University of Georgia. Mrs. Joseph A. Mile, of Fairleigh Dickinson University, was elected to Student Membership.

The Rev. David Blair Stiffler was proposed for Active Membership and Mr. Alfred W. Bennett, of Fordham, for Student Membership.

PROGRAM. Mr. Ginter Ekis of the Department of Entomology, Rutgers University, was the speaker—his subject—"Digestive, Excretory and Reproductive Organs of Clerid Beetles." Schematic drawings of internal structures as well as outer forms were shown through color slides of both Clerinae and Korynetinae orders.

The next meeting will be held April 4, 1972. The guest speakers will be Miss Beverly Greenspan and Mr. Arthur Arnold of Rockefeller University. The topic will be "Biology of the African Driver Ant," including slides and film.

The meeting was adjourned at 9:20 P.M.

BETTY WHITE, *Asst. Sec.*

Meeting of April 4, 1972

The meeting was called to order by President Howard Topoff at 8:15 P.M. 11 members and 4 guests were present.

Rev. David Blair Stiffler was elected to Active Membership and Mr. Alfred W. Bennett of Fordham University to Student Membership. Dr. David Alsop of the Department of Biology, Queens College, and Dr. Karl Maramorosch were proposed for Active Membership. Sister Lois J. Keller, of Fordham University, was proposed for Student Membership. The Journal of the New York Entomological Society is now under the editorship of Dr. Karl Maramorosch, Program Director for Insect Physiology and Virology at Boyce Thompson Institute.

A letter of appreciation from Mrs. C. H. Curran on behalf of her late husband was read to the members of the Society by President Howard Topoff.

PROGRAM. The guest speakers of the evening were Miss Beverly Greenspan and Mr. Arthur Arnold of Rockefeller University: topic—"Biology of the African Driver Ant,"

including slides and films. Referring to earlier studies of Dr. Schneirla, Mr. Arnold described his research concerning predatory and migratory habits of *Daryllus nigricans*. Essentially, Miss Greenspan discussed the amount of prey in relationship to size of ants; also, the association of Staphylinid beetles to *Daryllus nigricans*.

The next meeting will be held April 18, 1972. The guest speaker will be Fr. Daniel J. Sullivan, S. J. The topic will be "Bermuda—The Islands Darwin Missed."

The meeting was adjourned at 9:38 P.M.

BETTY WHITE, *Asst. Sec.*

Meeting of April 18, 1972

The meeting was called to order by Dr. Howard Topoff, President, at 8:15 P.M. 16 members and 11 guests were present.

The minutes of the meeting of April 4, 1972, were approved as read.

Dr. Karl Maramorosch, Editor of the *Journal of the New York Entomological Society* and Program Director for Insect Physiology and Virology at Boyce Thompson Institute, and Dr. David Alsop, of the Biology Department of Queens College, were elected to Active Membership and Sister Lois J. Keller, of Fordham University, was elected to Student Membership.

A competition initiated by Dr. Topoff to identify the "Mystery Scientist" from a slide photo baffled all. The correct answer was not Darwin, as guessed, but Robert Buckbee (former Publications Business Manager) with a beard.

The audience's attention was directed to the "Scientific Supplement" of *The Saturday Review* of April 15th, which contains an article by Eleanor Ford on army ants and includes the escapades of our illustrious president.

PROGRAM. Father Daniel J. Sullivan, S. J., spoke on "Bermuda—The Islands Darwin Missed." With slides, maps, and charts he described geology, geography, flora, and fauna of these Atlantic islands.

The speaker at the meeting of May 2, 1972, will be Dr. William W. Metterhouse, of the New Jersey Department of Agriculture, on the "Control of the Gypsy Moth."

The meeting was adjourned at 9:45 P.M.

JOAN DEWIND, *Sec.*

Meeting of May 2, 1972

The meeting was called to order by President Howard Topoff at 8:15 P.M. 16 members and 14 guests were present.

The previous meeting's minutes were approved as read.

PROGRAM. Mr. William W. Metterhouse of the New Jersey Department of Agriculture spoke on "Control of the Gypsy Moth," describing principally biological controls and their use, illustrating the moths, their spread and damage, and his experimental laboratories at Trenton, which Mr. Metterhouse invited all to visit.

Dr. Sullivan announced the next speaker: Albert J. Poelzl, who, with slides, will illustrate the "World of Nature." This will be the last meeting until fall, and will include a "year-end party with refreshments."

After an extensive question period, the meeting was adjourned at 9:50 P.M.

JOAN DEWIND, *Sec.*

Meeting of May 16, 1972

The meeting was called to order by President Howard Topoff at 8:15 P.M. 17 members and 8 guests were present.

The minutes of the meeting of May 2, 1972 were approved as read.

PROGRAM. Fun, frivolity, and refreshments preceded speaker Albert J. Poelzl's spectacularly beautiful slide show entitled "The World of Nature."

At 9:45 P.M., the meeting was adjourned until next fall.

JOAN DEWIND, *Sec.*

Meeting of October 3, 1972

President Howard Topoff called the meeting to order at 8:15 P.M. 13 members and 15 guests were present.

The minutes of the meeting of May 16, 1972 were approved as read.

The following names were proposed for Active Membership: Glenn K. Morris, Assistant Professor of Zoology, Erindale College, Clarkson, Ontario; Dr. Diane Young, Department of Zoology, Auburn University, Auburn, Alabama; L. H. Rolston, Department of Entomology, Louisiana State University; Michael J. Bentivegna, Jr., Bethpage, Long Island. Owner of pest-control firm; Robert B. Hutt, Washington. Interested in systematics; Dr. Charles C. Porter, Biology Department of Fordham University. Interested in systematics of Hymenoptera, especially Ichneumonidae; Marion W. Boesel, Zoology Department, Miami University, Oxford, Ohio.

PROGRAM. Father Sullivan introduced the speaker of the evening, Dr. James B. Kring. Dr. Kring described research he is doing on the behavior of aphids, with special reference to their vision, particularly related to their flight habits; he illustrated his talk with slides. (An abstract follows.)

Father Sullivan announced that Edwin Way Teale, author and photographic illustrator of many books on nature, and Society Member, will be the speaker on October 17th.

The meeting was adjourned at 9:25 P.M.

JOAN DEWIND, *Sec.*

BEHAVIOR OF APHIDS AND THEIR VISION

Aphids or plant lice are polymorphic plant parasites of the family Aphididae. M. D. Leonard has recorded over 450 species from New York. Some can live on only one kind of plant while others can develop on many different species. In this area aphids overwinter as eggs or as parthenogenetic, viviparous females in protected environments. In the spring wingless parthenogenetic females hatch from the eggs. Progeny of these stem mothers, depending on the species, are winged or wingless. The wingless forms produce aphids that will be winged if they are crowded or if the host is deficient.

Winged aphids reared under crowded conditions reject the plant on which they develop and fly to the sky. After one or two hours' flight aphids return to plants and attempt to find a suitable host. In leaving plants they are attracted to shortwave light and avoid plants or yellow surfaces. When aphids are searching for a host, many avoid surfaces that reflect shortwave light and alight on soil, plants, or yellow objects. Few alight on plants surrounded by shortwave reflecting surfaces (e.g., aluminum). This behavior has been used to protect plants. Such responses are visual and could result from changes in the eye, the central nervous system, or both. Winged aphids have ocelli, simple (three facets), and complex (many facets) compound eyes. Wingless aphids lack ocelli and may have simple eyes, complex eyes, or both. The structure and probably the function of each of these is different. Pigment movement occurs in the complex compound eye and may be related to the changing behavior of these insects to short- and longwave light.

JAMES B. KRING